

In the Claims:

Please add the following new claims.

59. (Newly added) A process for the preparation of urethane resins comprising the steps of
(1) reacting a N- β (aminoethyl) 8-aminopropylmethyldimethoxysilane having a hydrolyzable group selected from the group consisting of alkoxy groups directly bonded to 1 to 10 silicon atoms and having an organic group(I) selected from the group consisting of primary amino groups, with a 2-ethylhexylacrylate being capable of reacting with said organic group(I) to form a secondary amino compound, in order to produce a product(A) having said hydrolyzable group directly bonded to 1 to 10 silicon atoms and having less than two secondary amino groups in one molecule;

(2) reacting 4,4'-diphenylmethanediisocyanate with a compound selected from the group consisting of polyether polyol having an average molecular weight of 100-25000 and having at least 0.2 terminal secondary amino groups in one molecule, in order to produce a (thio)urethane pre-polymer (product(B)) having a terminal isocyanate group in an amount of 4 % or less by weight of said product(B), wherein said product(C) is obtained by reacting a compound(e) having an organic group(II) selected from the group consisting of amino groups, with a compound(f) having an average molecular weight of 100-25000 and being capable of reacting with said organic group(II) to form a secondary amine compound; and

(3) reacting said product(A) with said product(B) in the proportions of at least 0.5 equivalent of said product(A) per free isocyanate group of said product(B).

60. (Newly added) The process for the preparation of urethane resins according to claim 59, wherein said N- β (aminoethyl) 8-aminopropylmethyldimethoxysilane is a compound(a-1) having one primary amino group as said organic group(I), and wherein said compound(b) is a compound(i) selected from the group consisting of an α , β -unsaturated carbonyl compound and α , β -unsaturated nitrile compound.

C

61. (Newly added) The process for the preparation of urethane resins according to claim 59, wherein said N- β (aminoethyl) 8-aminopropylmethyldimethoxysilane is a compound(a-2), said 2-ethylhexylacrylate is selected from the group consisting of a compound(i), wherein said compound(a-2) has at least two primary or secondary amino groups or has at least one primary amino group and secondary amino group as said organic group(I), wherein said compound(i) is selected from the group consisting of an α , β -unsaturated carbonyl compound, wherein said compound(l) has less than two isocyanate groups and is obtained by reacting a compound(j) having at least two isocyanate groups with a compound(k) having one to two active hydrogens being reactive with an isocyanate group, and wherein, said compound(m) is a monoisocyanate compound.

B1
Ent

62. (Newly added) A process for the preparation of urethane resins comprising the steps of

(1) reacting N- β (aminoethyl) 8-aminopropylmethyldimethoxysilane with 2-ethylhexylacrylate being capable of reacting with said organic group(I) to form a secondary amino compound, in order to produce a product(A) having said hydrolyzable group directly bonded to 1 to 10 silicon atoms and having less than two secondary amino groups in one molecule;

(2) reacting 4,4'-diphenylmethanediisocyanate with polyether polyol in order to produce a (thio)urethane pre-polymer (product(B)) having a terminal isocyanate group in an amount of 4 % or less by weight of said product(B), wherein said product(C) is obtained by reacting a compound(e) having an organic group(II) selected from the group consisting of amino groups, with a compound(f) having an average molecular weight of 100-25000 and being capable of reacting with said organic group(II) to form a secondary amine compound; and

(3) reacting said product(A) with said product(B) in the proportions of at least 0.5 equivalent of said product(A) per free isocyanate group of said product(B).

B1
Cancel

C